ZIPPER SECURING DEVICES

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ABSTRACT

Zipper securing devices for keeping zippers in a securely closed but unlocked condition that provide for easy un-fastening and re-fastening of the zipper securing device. In one embodiment, the zipper securing device comprises an elastic loop assembly and post. In a second embodiment, the zipper securing device comprises two zipper pulls which snap together. In a third embodiment, the zipper securing device comprises a hook assembly and zipper pull assembly. In a fourth embodiment, the zipper securing device comprises an elastic loop assembly and zipper slider assembly.
ZIPPER SECURING DEVICES

FIELD OF THE INVENTIONS

The inventions described below relate to the field of zippers, and more particularly to zipper securing devices.

BACKGROUND OF THE INVENTIONS

Airport security procedures today forbid the use of locking devices to lock suitcases. However, securing devices are still needed to keep suitcases from popping open on baggage conveyor belts or elsewhere in the baggage handling system. A releasable zipper securing device is needed such that security personnel can easily unfasten the zipper securing device, un-zip the zipper, re-zip the zipper, and re-fasten the zipper securing device.

SUMMARY

The zipper securing devices described below keep zippers in a securely closed but unlocked condition and provide for easy un-fastening and re-fastening of the zipper securing device. In one embodiment, the zipper securing device comprises an elastic loop assembly and post. In a second embodiment, the zipper securing device comprises two zipper pulls which snap together. In a third embodiment, the zipper securing device comprises a hook assembly and zipper pull assembly. In a fourth embodiment, the zipper securing device comprises a hook assembly and slider assembly.

The zipper securing devices described herein are described with respect to zipper assemblies in suitcases or zippered luggage. However, these devices may be used for any zipper application, such as clothing, children's shoes, backpacks, etc.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. 1a and 1b show a zipper securing device comprised of an elastic loop assembly and post.

FIGS. 2a through 2c show a zipper securing device for use with two zipper pulls on a double zipper type assembly.

FIGS. 3a and 3b show a zipper securing device comprised of a hook assembly and a zipper pull assembly.

FIG. 4 shows a zipper securing device comprised of an elastic loop assembly and slider assembly.

DETAILED DESCRIPTION OF THE INVENTIONS

FIG. 1a shows a zipper securing device 1 comprised of an elastic loop assembly 2 and post 3. The elastic loop assembly further comprises elastic cording 4 wherein the proximal ends of the elastic cording are fixedly attached to a base 5. The base is attached to the upstanding tang or loop 6 of the zipper slider 7. The elastic loop assembly 2 may also be assembled such that the elastic cording is passed through the upstanding tang or loop wherein the proximal ends of the elastic cording are fixedly attached to the base. A flexible plastic sleeve 8 encompasses the elastic cording at the end of the elastic loop assembly that comes into contact with the post 3. The plastic sleeve acts to prevent fraying or damage to the elastic cording. FIG. 1b illustrates the zipper securing device in use. The elastic loop assembly 2 is stretched over and around the post. The post is fixedly attached to the suitcase 9. A button could also be used in place of the post. The elastic loop assembly 2 stretches over the post 3 to keep the zipper secured in the closed position. In the case where a typical dual slide zipper assembly is employed on the suitcase, each zipper pull incorporates an elastic loop assembly, and a post is placed on both ends of the zipper so that the user may close the case by pulling the dual slide to either end of the zipper. Thus, each slide is fitted with an elastic loop assembly and the posts have an annular groove sized to accommodate both loops.

FIGS. 2a through 2c show a zipper securing device 10 comprised of two zipper pull assemblies which are releasably attached to each other to keep the zipper secured in the closed position. A male zipper slider assembly 11 comprises a first zipper slider 12 and first upstanding loop 13 attached to a male zipper pull 14. The male zipper pull incorporates a male member, such as a molded post 15, attached to the back side of the pull such that it will come into contact with the female zipper slider assembly. A female zipper slider assembly 16 comprises a second zipper slider 17 and second upstanding loop 18 attached to a female zipper pull 19. The female zipper pull incorporates an eyelet 20 machined to receive the molded post of the male zipper slider assembly. The male and female zipper pulls fit together, snapping into place and thus keep the zipper secured in the closed position.

FIG. 3a shows a zipper securing device 21 comprised of a hook assembly 22 and zipper pull assembly 23. The hook assembly comprises elastic cording 24 passed through a hook 25. The distal ends of the elastic cording are slipped through an opening in a seam of the suitcase and secured to a base (not shown) or otherwise tied together such that the ends will not come apart when force is applied to the hook assembly. The hook assembly hides under a pocket in the suitcase fabric and pulls out in operation. The zipper pull assembly 23 comprises a zipper slider 27, upstanding tang or loop 28, and zipper pull 29. The zipper pull has an opening or slot 30 at its distal end into which the hook assembly hooks. FIG. 3b illustrates the zipper securing device in use. The hook assembly 22 is pulled out from a pocket in the suitcase fabric and pulled under and hooked into the slot at the distal end of the zipper pull assembly 23. The hook of the hook assembly stretches into the slot to keep the zipper secured in the closed position. In the case of a dual zipper assembly employed on the suitcase, only one of the zipper sliders needs the zipper pull assembly. The zipper pull furthest from the hook assembly is provided with the opening, and the pull is disposed when secured, over the second slider 27b.

FIG. 4 shows a zipper securing device 31 comprised of an elastic loop assembly 32 and zipper slider assembly 33. The elastic loop assembly comprises elastic cording 34 wherein the distal ends of the elastic cording are fixedly attached to a base 35. The base is riveted or fixedly attached to the suitcase fabric. A flexible plastic sleeve 36 encompasses the elastic cording at the end of the elastic loop assembly that comes into contact with the zipper slider assembly 33. The zipper slider assembly 33 comprises a zipper slider 37 and upstanding tang or loop 38. The loop is formed into a cleat 39, with the cleat providing a catch opposite the base. In use, the elastic loop assembly 32
stretches over and around the cleat 39 of the zipper slider assembly 33 to keep the zipper secured in the closed position. In the case of a dual zipper assembly employed on the suitcase, only one of the zipper sliders has the cleat, the zipper slider furthest from the elastic loop assembly.

[0013] Thus, while the preferred embodiments of the devices and methods have been described in reference to the environment in which they were developed, they are merely illustrative of the principles of the inventions. Other embodiments and configurations may be devised without departing from the spirit of the inventions and the scope of the appended claims.

1. A zipper securing device for releasably securing a zipper in the closed position on a zippered article, said zipper comprising a slider and loop, said zipper securing device comprising:
   an elastic loop assembly, said elastic loop assembly further comprising elastic cording fixedly attached to a base, said base connected to the zipper slider loop, a flexible plastic sleeve encompassing the elastic cording; and
   a post fixedly attached to the zippered article, wherein the elastic loop assembly is stretched over and around the post when the zipper is in the closed position.

2. A zipper securing device for releasably securing a zipper in the closed position on a zippered article, said zipper comprising dual zipper pull assemblies, said zipper securing device comprising:
   a male zipper slider assembly, said male zipper slider assembly further comprising a first zipper slider, a first loop, a male zipper pull attached to the first loop, said male zipper pull incorporating a post molded into the male zipper pull; and
   a female zipper slider assembly, said female zipper slider assembly further comprising a second zipper slider, a second loop, a female zipper pull attached to the second loop, said female zipper pull incorporating an eyelet machined to receive the post of the male zipper slider assembly, wherein the post is releasably attached to the eyelet when the zipper is in the closed position.

3. A zipper securing device for releasably securing a zipper; in the closed position on a zippered article, said zipper comprising a slider and loop, said zipper securing device comprising:
   a hook assembly, said hook assembly further comprising elastic cording attached to a hook, said hook assembly fixedly attached to the zippered article; and
   a zipper pull assembly, said zipper pull assembly further comprising a zipper slider, a loop and a zipper pull, said zipper pull having a slot at its distal end, wherein the hook assembly stretches and hooks into the slot of the zipper pull assembly when the zipper is in the closed position.

4. A zipper securing device for releasably securing a zipper in the closed position on a zippered article, said zipper comprising a slider and loop, said zipper securing device comprising:
   an elastic loop assembly, said elastic loop assembly further comprising elastic cording fixedly attached to a base, said base fixedly attached to the zippered article, a flexible plastic sleeve encompassing the elastic cording; and
   a zipper slider assembly comprising a zipper slider and a loop wherein the loop is formed into a cleat, and wherein the elastic loop assembly is stretched over and around the cleat when the zipper is in the closed position.

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